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GROWTH AND DISTRIBUTION OF ELECTRICITY SUBSIDY IN INDIA DURING PRE AND POST LIBERALIZATION

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ABSTRACT :

Indian Government play vital role in agriculture sector development. This vital role includes import-export policies and domestic policies like price support programmes, direct payments, and input subsidies to influence the cost farm inputs like credit, fertilizers, seeds, irrigation water, etc. Of all the domestic support of agriculture, input subsidies are the most common. In this paper, an attempt is made to analysis the growth and distribution of electricity subsidies in India during the pre as well as post liberalization period. Results showed that there is unequal distribution of electricity subsidy among all the zones of India during the research period 1980-81 to 2008-09. It is suggested that while distribution of the electricity subsidy among the zones some criteria like gross cropped area, productivity etc. should be adopted.

Keywords:Agriculture;Development;Electricity;Subsidy;Productivity

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Introduction

Indian Government play vital role in agriculture sector development. The government role is diverse and varied. Some of the cited reasons for vital role are self-sufficiency, employment creation, support to small scale producers for adopting modern technologies and inputs, reduction of price instability and improvement of the income of farm households. This vital role can take a number of forms such as import-export policies and domestic policies like price support programmes, direct payments, and input subsidies to influence the cost and availability of farm inputs like credit, fertilizers, seeds, irrigation water, etc. Of all the domestic support instruments in agriculture, input subsidies and product price support are the most common. Various benefits are cited in justifying input subsidies: economic, environmental and social (World Bank 2008).

In 1947, India enacted a series of policies to bring the economy under state control. These policies spread to the electricity sector, where the government sought to increase investment and organize small local generation into larger statewide systems. To this end, the government passed the Electricity Act of 1948, which transferred control of electricity generation, transmission and distribution from private ownership to public control. Under this act, each state formed a vertically integrated State Electricity Board (SEB) responsible for transmission, distribution and generation of electricity, as well as the setting and collection of tariffs (Tongia, 2003). Recognizing the poor state of the agricultural economy and its importance to the country's growth, the government enacted a series of policies to raise agricultural productivity, including subsidizing key agricultural inputs. These policies have been 4 argued to have spurred the Green Revolution in the 1960s (Rosengrant and Evenson, 1992). High yielding varieties of seeds were introduced and fertilizer use substantially increased, transforming Indian agriculture and leading to an increase in food security and economic growth. Another key element to the Green Revolution was access to and control of irrigation, an essential input in agricultural production (Repetto, 1994). To encourage irrigation, and especially groundwater irrigation, the government and NGOs invested in developing and distributing affordable pumping technologies and provided electricity subsidies to farmers (Briscoe and Malik, 2006).

In India, electricity subsidies enabled agricultural users to access electricity at prices below the marginal cost of supply, thereby lowering the cost of irrigation and groundwater extraction, an essential input in agricultural production. These electricity subsidies may also generate economic

inefficiencies. They may distort decisions over electricity consumption and groundwater extraction and induce individuals to grow more water intensive crops. Given the size of electricity subsidies for agriculture in India as well as in other developing countries, the economic consequences of this poverty alleviation strategy may be large. In this paper, an attempt is made to analysis the growth and distribution of electricity subsidies in India during pre as well as post liberalization period.

Review of Literature

Review of literature of the past theory and practice is necessary when conducting any research work. ReenaBadiani and Katrina K in their study stated that in India, expenditure on electricity subsidies for agriculture, an input subsidy aimed at improving agricultural productivity and the incomes of the agricultural work force, exceeds that spent on health or education. Yet the benefits and beneficiaries of these policies have been unexplored. This paper develops and empirically tests a model that describes the channels through which these subsidies should impact agricultural productivity. To isolate the impact of electricity prices on groundwater extraction and agricultural revenues, we exploit year-to-year variation in state electricity prices across districts that differ in hydrogeological characteristics. We find that a 10 per cent decrease in subsidies would reduce groundwater extraction by 4.3 per cent, costing farmers 13 per cent in agricultural revenues. As predicted,electricity subsidies increased agricultural productivity, both in terms of yields per hectare and cultivated hectares. We calculate small inefficiency costs from these subsidies; roughly 96 to 97 paisa of every Rupee spent by the government is passed along to consumers and producers.

Mukherji, (1990) tried to examine economic of electricity subsidy in West Bengal. He has conducted a study to describe the electricity subsidy in West Bengal. The author used primary data from 40 villages and he has selected 580 respondents from those villages. The author found that electricity subsidies benefit only big farmers than that of the small size category farmers. The author suggested that electricity subsidy should be given to small size category farmers only. Thus the studies discussed the impact electricity subsidies on farmers, economy etc. But none of study showed the growth and distribution of electricity subsidies in India during pre as well as post liberalisation period.

Research Methodology

The present study is based on secondary data. The present study is related to electricity subsidy in India from 1980-81 to 2008-09. In this study electricity subsidy is discussed during pre-liberalization period (1980-81 to 1985-86), first phase of liberalization period (1990-91 to 1996-97) as well as during second phase of liberalization period (2000-01 to 2008-09). For analyzing the growth and distribution pattern of electricity subsidies, five zones i.e. south zone (includes Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Pondicherry, Andaman and Nicobar Islands and Lakshadweep), west zone (includes Gujarat, Madhya Pradesh, Chhattisgarh, Maharashtra, Rajasthan, Goa, Daman and Diu and Dadra Nagar Haveli), east zone (Bihar, Jharkhand, Orissa and West Bengal), north zone (Haryana, Punjab, Uttar Pradesh, Uttaranchal, Himachal Pradesh, Jammu and Kashmir, Delhi and Chandigarh) and north-east zone (Assam, Tripura, Manipur, Meghalaya, Nagaland, Arunachal Pradesh, Mizoram and Sikkim) have been taken.

Result and Analysis

In India, commercial and industrial electricity users partially subsidize rural electricity users. These users often attribute the poor, sporadic and unreliable provision of electricity to the low prices paid by rural users (McKenzie and Ray 2004). In states where the commercial and industrial sectors comprise the inertial and dominant political lobbies, politicians follow a reverse campaign strategy. Politicians promise to reduce or eliminate the electricity subsidy provided to farmers (Badiani, 2010).

The subsidy of electricity of five zones in India during 1980-81 to 2008-09 is shown in table 1. This table reveals that in India, power subsidy has increased throughout the study period, whereas declined in south zone, west zone and east zone in 2008-09. On the other hand, increased in north as well as north-east zones during pre and post liberalization periods.

In India, this subsidy has increased from Rs.357.56 crores in 1980-81 to Rs.1, 324.15 in 1985-86 and further increased to Rs.26, 904 crores in 2000-01 and declined to Rs.14,771.52 crores in 2008-09. In south zone, electricity subsidy has risen up from Rs.83.52 crores in 1980-81 to Rs.8124 crores in 2000-01 and declined to Rs.4, 071.13 crores in 2008-09. In west zone, power subsidy has gone up from Rs.83.96 crores in 1980-81 to Rs.1, 588.17 crores in 1990-91 and further gone up to Rs.12, 353 crores in 2000-01 and declined to Rs.3,209.67 crores in 2008-09. In east zone, this has increased from Rs.20.51 crores in 1980-81 to Rs.976 crores in 2000-01 and

declined to Rs.720 crores in 2008-09. The electricity subsidy has increased from Rs.0.31 crores in 1980-81 to Rs.5.19 crores in 1990-91 and further increased to Rs.14 crores in 2000-01 in north-east zone.

South zone has got 23.36 percentage share at national level in 1980-81, which has increased to 31.05 in 1985-86 and declined to 27.68 in 1990-91 and again increased to 30.20 in 2000-01, whereas the percentage share of electricity subsidy has increased from 23.48 in 1980-81 to 34.37 in 1990-91 and further increased to 46.18 in 1996-97 and declined to 21.73 in 2008-09 in west zone.

North zone has got first rank in 1980-81 by receiving a major amount of percentage share (47.34 per cent) of electricity subsidy and this percentage share has declined to 31.29 in 1990-91 and increased to 45.84 in 2008-09. East zone has got fourth and north-east zone has occupied fifth position in case of electricity subsidy during pre as well as post liberalisation periods 1980-81 to 2008-09. East zone has received 5.74 per cent, 7.77 per cent, 6.55 per cent, 4.21 per cent, 3.63 per cent and 4.87 per cent in 1980-81, 1985-86, 1990-91, 1996-97, 2000-01 and 2008-09 respectively, whereas it has declined from 0.09 per cent in 1980-81 to 0.08 per cent in 1985-86 and increased to 0.11 per cent in 1990-91 and again declined to 0.05 per cent in 2000-01 in north-east zone.

Table 1 Zone-wise Distribution of Electricity Subsidy in India during 1980-18 to 2008-09

(In Rs. Crores)

Years/ Zones	1980-81	1985-86	1990-91	1996-97	2000-01	2008-09
South	83.52 (23.36)	411.12 (31.05)	1,278.95 (27.68)	4,095 (26.26)	8,124 (30.20)	4,071.13 (27.56)
West	83.96 (23.48)	386.51 (29.19)	1,588.17 (34.37)	7,201 (46.18)	12,353 (45.92)	3,209.67 (21.73)
North	169.26 (47.34)	422.51 (31.91)	1,445.98 (31.29)	3,635 (23.31)	5,437 (20.21)	6,770.72 (45.84)
East	20.51 (5.74)	102.93 (7.77)	302.71 (6.55)	656 (4.21)	976 (3.63)	720 (4.87)
North-East	0.31 (0.09)	1.08 (0.08)	5.19 (0.11)	7 (0.04)	14 (0.05)	-
India	357.56 (100)	1,324.15 (100)	4,621 (100)	15,594 (100)	26,904 (100)	14,771.52 (100)

Source: Government of India, State Electricity Boards (SEBs), Annual Reports, various years.

Note: Percentages are shown in parentheses

Conclusion

At India level, the electricity subsidy in Rs. crores has increased in absolute terms during the study period except in 2008-09, whereas the same pattern is found in south, west and east zones. As the year 2008-09 is compared to the year 1990-91, in north zone, this subsidy has increased by 4.68 times more of electricity subsidy, in south zone 3.18 three times, in east zone 2.37 times and in west zone 2.02 times. In 1990-91, the north zone has got 1.13 times more of electricity subsidy and 1.66 times in 2008-09 as compared to south zone. As compared to east zone, west zone has received 5.25 times more of electricity subsidy in 1990-91 and 4.46 times in 2008-09. Results showed that there is unequal distribution of electricity subsidy among all the zones of India during the research period 1980-81 to 2008-09. It is suggested that while distribution of the electricity subsidy among the zones some criteria like gross cropped area, productivity etc. should be adopted.

References

[1] Badiani, R. and Jessoe, K. (2011), "Electricity subsidies for agriculture: Evaluating the impact and persistence of these subsidies in India". Working Paper.

[2] Government of India, Union Budget, Various years (http:/indiabudget.nic.in)

[3] Government of India, Annual report on the working of state electricity boards and electricity department, Power and Energy Division, Planning Commission, various issues.

[4] Mukherji, Aditi, Tushaar Shah and ShilpVerma (1990)," Electricity reforms and their impact on ground water use in states of Gujarat, West Bengal and Uttrakhand, India", Economic and Political weekly, Vol. 35, No. 2, pp. 145-150, Feb.15

[5] Repetto, R. (1994), "The 'second India' revisited: Population, poverty and environmental stress over two decades" Washington, D.C.: World Resources Institute.

[6] Rosengrant, M. W. and R. E. Evenson (1992), "Agricultural productivity and sources of growth in South Asia. American" Journal of Agricultural Economics 74(3), 757-61.

[7] Tongia, R. (2003), " The political economy of Indian power sector reforms (PSED Working Paper #4)" Stanford, CA.